

R-O-R ASSOCIATES LTD.

1470 DON MILLS ROAD.

DON MILLS, ONT.

SOPHISTICATED LITTL



MULTI-PURPOSE FUNCTION GENERATORS

Here's a HANDFUL OF VERSATILITY — three units in one compact case. Function generator...oscillator...square wave generator. Rugged modular construction, completely solid state, excellent frequency and amplitude stability. Sine wave, square wave, triangle wave — Sophisticated performance for bench or rack mounting with power supply options.

0.008 CPS TO 1 MC

All WAVETEK models feature extremely broad frequency range; clean waveform; flat frequency response; 5 nanosecond rise time and a high frequency triangle wave heretofore unavailable. All WAVETEK models make ideal sources of test signals from servo to video frequencies.

SPECIFICATIONS

Frequency Range: 0.008 cps to 1 mc.

Waveforms: Square, triangle & sine wave. Symmetrical about ground.

Square Wave Distortion: Tilt less than 0.1%. Overshoot and ringing less than 1% for harmonics below 10 mc and less than 5% for harmonics above 10 mc.

 $\label{thm:continuous} \textbf{Triangle Distortion:} \ \ \text{Less than} \ \ 1\% \ \ \text{for harmonics less than} \ \ 1 \ \ \text{mc.}$

Sine Distortion: Less than 1% to 10~kc; less than 2% to 100~kc.

Trigger Input: Upon receipt of + or - 5V external trigger (specify), one cycle is generated. If trigger is a long gate pulse, numerous cycles (the length of the gate), will be generated.

Output A:

1 volt p-p, 50 ohms output impedance. Rise and fall time less than 5 nanoseconds in-

dependent of frequency. Output B: \Box 10 volts p-p 1%,

ע 10 volts p-p 1%, 600 ohms output impedance. Rise and fall time less than 15 nanoseconds, independent of frequency.

Output C:

5 volts p-p, 5 ohms output impedance. Current limited to 5 ma.

Output D:

√ 2 volts rms, or √ 5 volts p-p, 5 ohms output impedance current limited to 5 ma.

Output E:

□ , ∿ or ⋄ . Maximum output 30 volts p-p into 600 ohms load, 50 ohm output im-

Size and Weight: POWER SUPPLIES

pedance, short circuit current \pm 100 ma. 734" W, 514" H, 712" D. Approximately 8 pounds. Option AC: 115 or 230 VAC, 50-400 cps less than 5

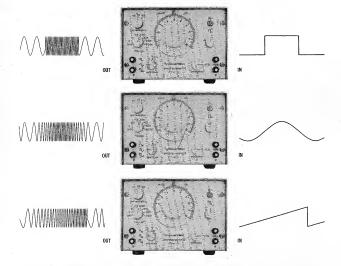
Option R: Nickel cadmium batteries with internal charger. Simultaneous operation and charge. 8 hours operation on batteries between charges. 115 or 230 VAC, 50-400 cps, less than 10 watts.

MODEL		101	102	103	106	107
Outputs Incl.		A,B,C	A,B,D	A,B,E	A,D	A,E
Trigger		No	No	No	Yes	Yes
* Power Option	AC	\$395	\$495	\$595	\$595	\$695
	R	\$475	\$575	No	\$675	No

* "D" Battery versions also available. Prices and specifications subject to change.



VOLTAGE CONTROLLED **GENERATOR**



Here's SOMETHING UNIQUE in signal generating equipment! The WAVETEK models 104 and 105 will generate modulated \sim , \square , and \wedge waves with any electronic modulating function you can provide . . . all from .0015 cycles to 1 mc. Did you ever want to:...fm a servo?...sweep test a low frequency filter?...spot check a tm channel?...sweep test if strips? ... fm or sweep a triangle wave? ... fm or sweep a square wave? ... You can do any or all of these completely electronically with a WAVETEK model 104 or 105. Without external sweep control, it's a general-purpose generator...a real handful of versatility.

SPECIFICATIONS

Frequency Range: .0015 CPS to 1 megacycle

VCG Range: 20: 1 max

vcg Input Voltage: 4.75 volts total for 20:1 frequency (full

dial spread)

VCG Input Impedance: $10 \text{ k}\Omega$ minimum

vcg Linearity: $\pm 1.0\%$ frequency vs. input voltage Frequency response, accuracy, stability, distortion, outputs, size & weight, same as models 102 & 103

MODEL		104	105	
Outputs Incl.		A,D	A,E	
Power	(AC	\$595	\$695	
Supply	(≀R	\$675	No	

8159 ENGINEER ROAD SAN DIEGO, CALIFORNIA PHONE 714-279-2200

PROGRAMMABLE &

VOLTAGE CONTROLLED FUNCTION GENERATOR



MODEL 150

VCG Frequency Range: 10:1 maximum vcg Input Voltage: 5 volts total for 10:1 frequency range

VCG Input Impedance: 10KΩ minimum **vcg** Linearity: $\pm 1.0\%$ frequency vs. input voltage

Accuracy of Programmed Frequency: \$995

Frequency Range: .01 cps to 1 megacycle in 8 ranges

±1% of frequency plus 1 digit

Outputs: Fixed amplitude simultaneous Sine, Trian-

gle and Square Sine and Triangle: 600Ω output impedance—5V p-p. Square: 50Ω output—1V p-p, 5 nanosec-

onds rise and fall time max.

Programmed Output: 50Ω output impedance, 10 MV to 10 VPP, 3 ranges, short circuit current ±100 ma.; Square wave rise and fall time, 100 nanoseconds max. max.

Amplitude Stability: Frequency Response:

 \pm 1.0% long term; \pm 0.1% short term \pm .1 db to 100 kc; \pm 1.0 db to 1 mega-

cvcle

Frequency Stability: \pm 1.0% long term: \pm 0.1% short term Function Selection: Remote contact closure

Frequency Selection:

Three decades contact closure: BCD Code 1248; other codes and logic levels avail-

able.

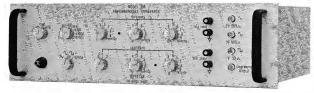
Range Selection: Amplitude Selection:

Remote contact closure—8 ranges
Three contact closure: BCD Code 1248; other codes and logic levels available.

Power Required: 115 or 230 vac. $\pm 10\%$, 50-400 cps ap-

prox. 15 watts. Size and Weight: $5\frac{1}{4}$ " H x 19" W, 16"D for rack or bench

use; 10 pounds approximately.



\$1195

MODEL 155

ALL SPECIFICATIONS SAME AS MODEL 150 WITH LOCAL, FRONT PANEL SWITCHING IN ADDITION TO REMOTE CONTROL CAPABILITY.

AUXILIARY POWER PACK \$595.00

For use with Models 103 and 105, this unit supplies 115AC from a nickel cadmium battery supply and will operate standard AC models for 8 hours in remote locations away from power line. The Auxiliary Power Pack has a built-in charger that will recharge the batteries in 16 hours to full strength after the 8 hour use. Rear input and output connectors, portable models, \$25.00 each. Not applicable to 150 series.



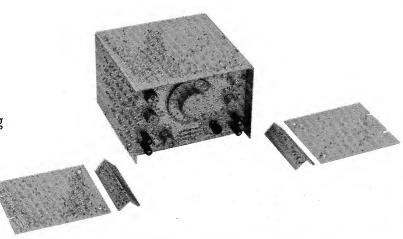
RACK MOUNT INSTRUMENTS \$50.00 extra

A 51/4" x 19" panel mounting may be ordered for any WAVETEK instrument by adding \$50.00 to the basic price of the desired unit. Rear connectors are included in the Rack Mount price.



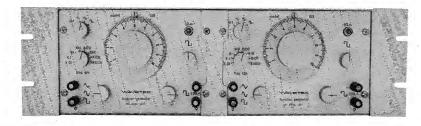
RACK ADAPTER KIT \$15.00

Angle brackets and panels for rack mounting any portable WAVETEK model.



DUAL RACK ADAPTER KIT \$30.00

Angle brackets and panels for rack mounting any two portable WAVETEK models.



FINE ZERO ADJUST CONTROL

Max. 150 mils shift

This control allows exact adjustment of DC output level to ground potential. All models.

\$50.00 extra

DC OFFSET ADJUSTMENT

±5v shift

Models 103 and 105. This adjustment allows operation above and below OV ground potential. This shift, however, limits the p/p output by the amount of offset, e.g., 5v offset limits p/p output to 10v without output amplifier clipping.

\$50.00 extra

SPECIAL PAINT

Rack Mount Instruments Only

Customer furnish paint, add \$15.00 to Rack Mount price . . .

\$65.00 extra

WAVETEK furnish paint, add \$50.00 to Rack Mount price . . .

\$100.00 extra

SERVICE KIT

Prewired assemblies to allow operation and testing of individual PCB, separate from complete assembly.

\$15.00